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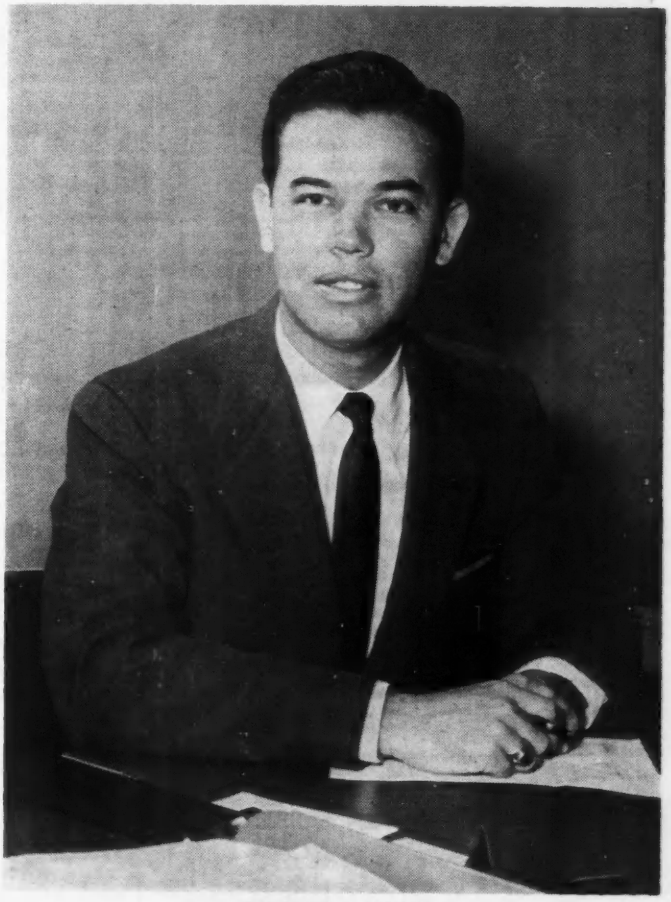
NEW GENERAL MANAGER NAMED



HOMER HOOKS

Named General Manager of Florida Citrus Commission.
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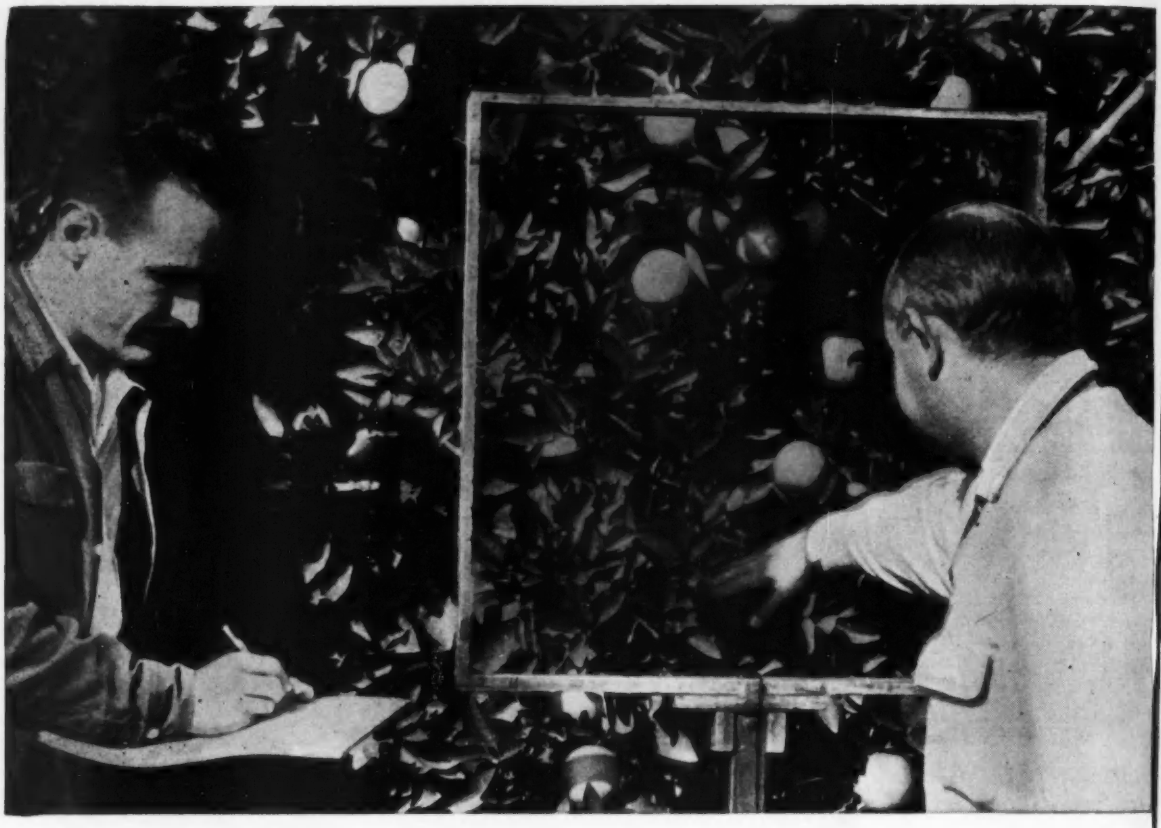
VOL. 38 — NO. 7 JULY, 1957 BARTOW, FLORIDA



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R. M. Pratt

Citrus Insect Control

R. B. Johnson

For July 1957

R. B. JOHNSON*
R. M. PRATT
W. L. THOMPSON
Florida Citrus Experiment Station, Lake Alfred

W. L. Thompson

Rust mite infestations have built up earlier this year than at anytime in the past seven years, in which population records have been kept. Activity is at a high level, and rusty fruit has already appeared where rust mites have not been controlled. The level of activity will be high through July.

Purple mite infestations reached a peak in late June and infestations will decline through July. Texas citrus mites have been more common this year than before, but the population will also decline in July.

Purple scale activity will reach a peak about the first of July and red scale activity reached a peak late in June. The level of both scales will decline in July, but control will still be needed in most groves.

Mealybug infestations are at a record high level. An unusually large number of groves is lightly infested, and infestations are heavy in some groves.

SPRAY PROGRAM

July is the month when the scale control program should be pursued in earnest. It is also the month in which to control greasy spot. Although purple mite and Texas citrus mite will be a rare problem, rust mite will need to be controlled in most groves.

Based only on general observations, it seems that we have a big crop of fruit coming. If this is so, it may mean low fruit prices next year which could make the production of high-solids fruit with good external appearance more worthwhile than ever. It is known that oil sprays reduce the soluble solids content of fruit, especially when sprayed after about July 15. For this reason, it is suggested that all oil sprays, even if half-strength oil is used with parathion or malathion, should be applied as soon as possible. Thorough scale and rust mite control is essential for the production of fruit with good external appearance.

Rust Mite Control: Control measures against rust mite should be applied when from 10 to 20 percent of the fruit is infested, regardless of the date or proposed control program. The best spray for use against rust mite at this time of the year is 10 pounds of wettable sulfur per 100 gallons. The combination of 5 pounds of wettable sulfur and 1 gallon of lime-sulfur per 100 gallons of spray is also very effective, but is more likely to cause a burn during hot weather.

Sulfur cannot be combined with oil emulsion for scale control, but it should be used with parathion or malathion sprays. When combined with either of these materials, since it is assummed that more thorough coverage will be obtained than with an ordinary application of sulfur, the dosage of wettable sulfur may be reduced from 10 to 5 pounds. If oil emulsion is the preferred scalicide, rust mite should be controlled with sulfur dusts or sprays applied either three weeks before or as long after the application of oil.

Sulfur dust, applied at the rate of ½ to 1½ pounds of dust per tree, depending on tree size, is effective if good distribution of the material is obtained over the entire tree. For best results, apply when the foliage is moist, as at night or in the early morning.

Many growers, perhaps most growers, are now trying zineb. For this reason, it is pointed out that zineb is not yet recommended by the Citrus Experiment Station, but has been suggested for limited use on a trial basis only, until more information is obtained. Rust mite should be controlled at all times because available evidence still indicates that this mite is the cause of russetting. It is known that zineb kills and controls rust mite at least as well as wettable sulfur.

Purple and Florida Red Scale Control: The most effective scalicide is the mixture of oil emulsion at the dosage of 0.7 percent actual oil plus 1 pound of 15 percent parathion or its equivalent in other formulations per 100 gallons. This mixture of 0.7 percent oil plus 3 pounds of 25 percent malathion is also very effective. If oil emulsion is used without malathion or parathion, the dosage should be 1.3 percent actual oil.

Where parathion or malathion are used without oil, use 1.7 pounds of 15 percent parathion or 5 pounds of 25 percent malathion per 100 gallons unless a second application is contemplated. If a second scalicide is to be used or if scale populations are very low, 1 pound of 15 percent parathion or 3 pounds of 25 percent malathion are sufficient.

Black Scale Control: Black scale is sufficiently numerous in some groves to make control measures worthwhile. Control should be ap-

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SCALE AND MITE ACTIVITY BY DISTRICTS*

District	Purple Scale	Red Scale	Purple Mite	Rust Mite on leaves
West Coast	4.75	3.50	1.34	2.78
Indian River	4.86	4.50	1.55	2.13
Upper East Coast	4.05	4.63	1.13	1.51
Gainesville	4.83	.66	.83	0
Orlando	3.87	3.51	1.00	1.30
Brooksville	4.19	3.07	1.93	2.08
Ridge	5.47	4.79	2.52	2.76
Bartow	5.72	4.56	1.73	3.14
State Average	4.75	4.14	1.62	2.11
Last Year	4.99	4.53	2.35	1.65

* Third week in June. Activity is computed from populations, amount of hatching of scales, and number of groves with increasing or decreasing infestations. Activity is considered high if above 4.0 for purple scale, 3.0 for red scale, and 1.5 for mites.

* Written June 21, 1957. Reports of surveys by Harold Holtsberg, Fort Pierce; J. W. Davis, Tavares; K. G. Townsend, Tampa; T. B. Hallam, Avon Park; and L. M. Sutton, Lake Alfred.

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Effect Of Heat Treatment Temperatures On Survival Of Microorganisms In Single Strength Orange Juice[1]

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E. C. HILL

The fact that fruit juice may contain microorganisms indigenous to the area in which the fruit was grown and the environment in which the juice was produced, is well known. This contamination is of interest because it reflects upon the sanitary conditions in the processing plant as well as the quality and soundness of the fruit. Some organisms may be indicated of health hazards; others may cause off-flavors to develop or cause the juice to ferment. Bacteria that cause disease and those bacteria that are indicative of health hazards are destroyed by the heat treatment at temperatures below that required to destroy spoilage organisms (5,8).

Single-strength orange juice canned for commerce usually has been heated sufficiently to prevent microbiological spoilage. The juice may also undergo a change in flavor due to the heat treatment. The experiment reported in this paper were conducted to determine the minimum temperature and exposure times for the destruction of organisms of known strains, of mixed cultures, and of those natural to the habitat of the fruit.

A bacteriological study of organisms in citrus juices that survive high-short pasteurization was made by Nolte and von Loesecke (6). They learned that those organisms which survived heat treatment did not grow when reinoculated in orange or grapefruit juices. Berry (2) isolated a thermophillic organism, **Bacillus thermoacid-urans** from canned tomato juice in which an off-flavor had developed. Bissett, et al. (3) while working with sweetened and unsweetened lime juice, found that an exposure of 5 seconds at 170°F. was required to stabilize the juice at 35°F. storage during a 15 month period. Murdock et al. (5) published their observations on the thermal resistance of identified strains of Leuconostoc and Lactobacilli, and some unidentified yeasts. They used sealed thermal death time tubes (9 x 120 mm) in constant temperature baths. It was found that the organisms had a greater resistance in concentrate than in single-strength juice and it was suggested that commercial pasteurization would be more effective when applied to single-strength juice. Hays and Riester (4) suggested "flashing" the juice to be evaporated as a safety factor

[1]Cooperative research by the Florida Citrus Experiment Station and Florida Citrus Commission.

against chance build-up of spoilage in the evaporator.

Experimental Methods

The experiments reported in this paper were conducted in the pilot plant at the Citrus Experiment Station, using the juice of Pineapple and Valencia oranges. The juice was extracted with a Rotary press, using a 0.030 inch screen in the finisher to obtain approximately an 8% pulp content by volume. Heat treatment was carried out in a special pasteurizer designed by Atkins and Rouse (1, 7). The heating times employed were 0.8, 3, 6, and 12 sec. and the temperatures were 135 degrees, 145 degrees, 155 degrees, 165 degrees, 175 degrees, 185 degrees, and 190 degrees F. The juice was treated with the highest temperature in the series first, using the shortest time exposure and decreasing step wise to the longest exposure time in the series. This plan was repeated with each temperature.

These experiments were conducted with the juices of Pineapple and Valencia oranges at pH 3.6, 3.7, 3.8, and 4.0. In the experiments with juices inoculated with identified strains of **Lactobacillus plantarum** and **Leuconostoc mesenteroides**, prior pasteurization was used to eliminate chance organisms. Juice from grove-run oranges of these two varieties, carrying the chance contamination or fortified with a mixed culture of unidentified organisms from citrus fruit sources was also used.

The numbers of organisms surviving at each temperature and exposure time were determined by inoculating dilutions of the heat treated juice into dextrose trytone agar at pH 7.0 and orange serum agar at pH 5.6; the plates were incubated at 32°C. for 72 hours.

Discussion of Results

The results from pasteurized single-strength juices inoculated with **L. plantarum** are found in Tables 1 and 2. The cutlure failed to survive 155°F. for 12 seconds: pH did not seem to effect much change. **L. mesenteroides** exposed at 145°F. for 6 seconds in similar juices under similar circumstances showed the destruction of microorganisms except at pH 4.0 when 165°F. at 12 seconds were required (tables 3 and 4).

The effects of heat treatment temperatures using single-strength juice from Pineapple oranges of grove-run fruit, fortified with an unidentified mixed culture isolated from citrus fruit sources, and a similar juice from Valencia oranges, after the worst of the soft rotting fruit had been discarded, are shown in tables 5 and 6. There was not complete destruction of the organisms in these juices, within the range tested, 145° to 190°F. However, the organisms surviving at the temperatures of 165°, 175°, 185°F., and pH 3.8, in Pineapple orange juice for 3, 6, and 12 seconds at 190°F. are not of significant numbers and may be considered commercially acceptable (table 5); likewise, the numbers surviving at 190°F. in Valencia orange juice at pH 4.0 for the stated heating time (table 6). The numbers surviving in Valencia orange juice may not be due to the effect of pH alone, but also to the difference in the nature of the microbial contamination.

TABLE 1
Effect of heat treatment on the destruction of Lactobacillus plantarum in Pineapple orange juice

Temp. °F.	Exposure time sec.	Numbers per ml. of juice			
		Dextrose tryptone agar, pH 7.0		Orange serum agar, pH 5.6	
		Juice, pH 3.6	Juice, pH 3.8	Juice, pH 3.6	Juice, pH 3.8
None	None	400,000	250,000	400,000	200,000
185	0.8	5	2	3	2
	3.0	3	0	3	0
	6.0	2	0	3	0
	12.0	2	0	2	0
175	0.8	2	0	3	0
	3.0	2	0	3	0
	6.0	2	2	3	0
	12.0	1	0	2	0
165	0.8	1	420	1	350
	3.0	7	630	4	840
	6.0	2	0	1	0
	12.0	1	0	0	0
155	0.8	TNTCa	9,800	TNTCa	9,100
	3.0	35,000	9,450	36,000	10,500
	6.0	10,000	60	8,000	30
	12.0	0	0	0	0

a TNTC - Too numerous to count

Table 2
Effect of heat treatment on the destruction of Lactobacillus plantarum in Valencia orange juice

Temp. °F.	Exposure time sec.	Numbers per ml. of juice			
		Dextrose tryptone agar, pH 7.0		Orange serum agar, pH 5.6	
		Juice, pH 3.6	Juice, pH 4.0	Juice, pH 3.6	Juice, pH 4.0
None	None	480,000	300,000	460,000	370,000
185	0.8	0	0	0	0
	3.0	0	60	0	0
	6.0	0	0	0	0
	12.0	0	0	0	0
175	0.8	0	0	0	0
	3.0	0	0	0	0
	6.0	60	0	0	0
	12.0	0	30	0	0
165	0.8	0	0	0	0
	3.0	0	10	0	0
	6.0	0	40	0	0
	12.0	0	0	0	0
155	0.8	6,100	0	5,400	70,000
	3.0	1,300	35,000	1,100	35,000
	6.0	0	3,500	0	80
	12.0	0	0	0	0

TABLE 3
Effect of heat treatment on the destruction of Leuconostoc mesenteroides in Pinneapple Orange Juice

Temp. °F.	Exposure time sec.	Numbers per ml. of juice			
		Dextrose tryptone agar, pH 7.0		Orange serum agar, pH 5.6	
		Juice, pH 3.6	Juice, pH 3.8	Juice, pH 3.6	Juice, pH 3.8
None	None	3,200,000	360,000	3,000,000	310,000
165	0.8	0	0	0	0
	3.0	0	0	0	0
	6.0	0	0	0	0
	12.0	0	0	0	0
155	0.8	0	0	0	0
	3.0	0	0	0	0
	6.0	0	0	0	0
	12.0	0	0	0	0
145	0.8	44,000	120,000	30,000	60,000
	3.0	6,000	24,800	7,000	5,000
	6.0	0	0	0	0
	12.0	0	0	0	0
135	0.8	7,000	242,000	11,000	95,000
	3.0	50,000	57,000	25,000	30,000
	6.0	6,000	10,000	4,000	8,000
	12.0	1,000	500	3,000	600

The heat treatment tests using juice from grove-run fruits did not show the consistently clear cut results that were noted in the experiments using pasteurized juices inoculated with identified strains of bacterial species. The character of the microbial contamination, rather than the pH of the juice, seemed to have much to do with the numbers of organisms surviving the heat treatment. Those numbers surviving may not be significant when considering the stability of the juice, but such results usually raise a doubt as to the quality of the fruit used.

SUMMARY

1. **Lactobacillus plantarum** in Pineapple and Valencia orange single-strength juices was destroyed in 12 seconds at 155°F. at pH 3.6, 3.8, and 4.0.

2. **Leuconostoc mesenteroides** in Pineapple and Valencia orange single-strength juices at pH 3.6, 3.7, and 3.8, was destroyed in 6 seconds at 155°F., while at pH 4.0, 12 seconds at 165°F. were required.

3. Consistent reduction of organisms did not occur after the heat treatment of juice from grove-run fruit. The character of the microbial contamination rather than the pH of the juice seemed to have much to do with the numbers of organisms that survived the treatment temperatures.

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TABLE 4

Effect of heat treatment on the destruction of Leuconostoc mesenteroides in Valencia orange juice

Temp. °F.	Exposure time sec.	Numbers per ml. of juice: Dextrose tryptone agar; pH 7.0		Orange serum agar, pH 5.6	
		Juice, pH 3.7	Juice, pH 4.0	Juice, pH 3.7	Juice, pH 4.0
None	None	180,000	140,000	200,000	140,000
165	0.8	40	0	0	0
	3.0	10	0	0	0
	6.0	0	400	0	200
	12.0	0	0	0	0
155	0.8	0	600	0	1,050
	3.0	0	20	0	250
	6.0	0	70	0	140
	12.0	0	30	0	140
145	0.8	0	3,000	200	1,700
	3.0	0	2,200	100	600
	6.0	100	0	0	0
	12.0	150	0	0	250
135	0.8	54,400	23,000	42,000	8,000
	3.0	6,700	8,000	4,000	3,200
	6.0	1,800	300	1,000	1,500
	12.0	0	0	100	200

TABLE 5

Effect of heat treatment on the destruction of microorganisms in Pineapple orange juice from grove-run fruit pH 3.8b

Temp. °F.	Exposure time sec.	Numbers per ml. of juice: Dextrose tryptone agar, pH 7.0	Orange serum agar, pH 5.6
None	None	74,000	65,000
190	0.8	110	90
	3.0	0	1
	6.0	3	2
	12.0	2	1
185	0.8	4	4
	3.0	3	1
	6.0	0	0
	12.0	1	1
175	0.8	3	3
	3.0	1	1
	6.0	0	1
	12.0	2	0
165	0.8	1	1
	3.0	0	0
	6.0	3	0
	12.0	1	2
155	0.8	850	500
	3.0	1,820	840
	6.0	120	40
	12.0	20	0
145	0.8	12,500	4,500
	3.0	13,200	5,000
	6.0	9,200	5,300
	12.0	5,000	2,600

b Mixed culture in active growth phase added because of low count in juice after extraction.

TABLE 6

Effect of heat treatment on the destruction of microorganisms in Valencia orange juice from grove-run fruit, pH 4.0c

Temp. °F.	Exposure time sec.	Numbers per ml. of juice: Dextrose tryptone agar, pH 7.0	Orange serum agar, pH 5.6
None	None	100,000	80,000
190	0.8	91	47
	3.0	77	40
	6.0	78	32
	12.0	110	67
185	0.8	111	85
	3.0	88	36
	6.0	88	68
	12.0	76	60
175	0.8	135	82
	3.0	113	45
	6.0	147	70
	12.0	114	61
165	0.8	125	126
	3.0	225	122
	6.0	155	138
	12.0	85	80
155	0.8	570	400
	3.0	1,380	1,080
	6.0	720	430
	12.0	770	250
145	0.8	6,900	1,000
	3.0	3,700	2,000
	6.0	3,700	700
	12.0	3,800	600

c Only soft rotting fruit discarded.

34th Annual Meeting Of Growers And Shippers League

REPORT OF

GORDON STEDMAN
EXECUTIVE VICE PRESIDENT

Mr. President, Officers, Members and Guests: On behalf of the League's staff I wish to bid you welcome and express the hope that you are having an enjoyable evening. I would also like to officially express our appreciation to the Central Truck Lines for their very fine hospitality. It appears to me that every one enjoyed the party and I would now like to recognize Mr. Phil Meloy, General Sales Manager and Mr. Pete Walker, his assistant.

At one time the League dealt primarily with the rate situation, package specifications and the type and resulting weight of the containers used by the fruit and vegetable industries of Florida. In recent years, however, these activities have expanded into other fields, which directly affect the transportation situation.

There are influential forces at work that continue to peck away at the exempt truck operation. Strange as it may seem rather than restricting or limiting the exemption, the exemption has been broadened either by the Commission or Court decisions. The Courts recently ruled that frozen fruits and vegetables were exempt.

As a result the Interstate Commerce Commission recommended to Congress that Section 203 of the Interstate Commerce Act be re-written and provide that the exemption would extend from the point of production to a point where such commodities passed out of the total possession and control of the producer.

Maxwell Wells and I have had conferences with the Farm organizations, the railroads and the Common Carrier Conference of the American Trucking Association, and have told them that we would strongly oppose any attempt at limiting the exemption insofar as the fresh fruit and vegetable industry is concerned and that it was the view of our Transportation Advisory Council that processed citrus fruits, either concentrate or the so-called single strength canned juice, and sections should be non-exempt.

The National Association of Frozen Food Packers have on several different occasions given very careful thought and study to the District Court's findings that frozen fresh fruits and vegetables are exempt commodities and concluded that for the good of the industry frozen fruits and vegetables should be under regulation.

The Chairman of the Interstate Commerce Commission at a conference in Yakima, Wash., indicated that the Commission's interpretation of their suggested amendment was that the point of first sale by the producer was at terminal market and not the shipping point. We cannot read into the wording of the suggested amendment this interpretation and vigorously oppose the bill before Congress.

We have suggested to the railroads and the trunk lines that an attempt be made to determine upon an area of agreement as to what should and should not be within the exemption. We have done this for one reason. We have found that we have had to vigorously oppose before Congress amendments that would jeopardize the agricultural exemption and believe that if we do not go before Congress with a liveable amendment agreed to by the railroads, trucking association and industry, then we would find the Interstate Commerce Commission going in one direction — and we understand exactly that direction — the railroads in another, the trucking industry in another and the agricultural interests opposing all and trying to hold the line.

These conferences and suggestions have been fruitful. We have assurance from the railroads and the Common Carrier truck lines that they will not suggest — if we can come to an agreement — that agricultural commodities in their natural state lose the exemption, and proposed legislation is now being drafted that would bring about this result.

As matters now stand frozen fruits and vegetables, shelled nuts and dressed poultry, and some other commodities, which previously were considered non-exempt were found by the Courts or the Commission to be exempt and the proposed amendments would bring this group of commodities back under regulation.

I have spent perhaps too much time on this particular problem as our speaker this evening is well versed on the private and exempt carrier situation and will discuss it more fully in just a few moments. If there are any questions that any member or guest would like to present we want you to feel free to do so.

We have been fortunate in securing several substantial rate reductions on fresh citrus fruit, concentrate and vegetables. It is, however, dissituation where one day the rates are reduced and within two or three days to two weeks the rates are again increased, and I am referring to the recent adjustment in rates to Detroit, Cleveland and the Buffalo area. This reduction went into effect December 10th and the rates were increased December 28th. To the Southwestern and Western Trunk Line Territories the rates were reduced December 26th and increased December 28th. We have somewhat the reverse situation to Chicago and Illinois Freight Association Territory. There the rates were increased December 28, 1956, and reduced March 20th, 1957. These reductions, however, were substantial to the Chicago and Detroit areas, approximately $86.00 per car.

The proposals for reductions in rates on fresh citrus fruit have been submitted jointly to the railroads by the Indian River Citrus League and the Growers and Shippers League of Florida. We are pleased to advise you that we have had very strong support from the Seaboard, South-

ern and Illinois Central Railroads. This was also true in connection with the reduction in rates on frozen citrus concentrate.

We have continued to advance a theory that a proper level of rates would return the citrus and vegetable traffic to the carriers and their earnings would increase substantially resulting from the increased volume of movement. The reductions in 1950 and recently to the Cleveland and Chicago areas again proved this theory.

The Ex Parte 206 — Increased Freight Rate proceedings in which the Eastern and Western Lines are asking for general freight rate increases of 22% and the Southern Lines 15% are about complete. Oral argument began in Washington June 3rd and was presented by our attorney, Mr. Wells, and we will ask Mr. Wells later to explain to you briefly the position taken by the League in this proceeding.

You will recall the long drawn out procedure in the Refrigeration Case. The carriers filed their first petition requesting authority to increase refrigeration charges by 30% in August, 1953. Increased rates became effective April 17, 1956, and were increased 15% or one-half of the amount requested. The overall annual increase to the Florida citrus, fresh and processed, and the fresh vegetable industry would have been in the vicinity of three million dollars, or close to nine million dollars for the three years that it took to prosecute this case. The increase in mechanical refrigeration charges did not become effective until September 10, 1956.

We were authorized by our Transportation Advisory Council to file a petition with the Interstate Commerce Commission requesting suspension and an investigation of the mechanical refrigeration charges, which the Commission denied. We are now further authorized to file a formal complaint with the Interstate Commerce Commission attacking the mechanical refrigeration charges.

At this point I would like to extend a word of appreciation to the Officials of the Florida Fruit and Vegetable Association. We have enjoyed excellent cooperation in prosecuting both the Refrigeration and the Ex Parte 206 — Increased Freight Rate Case, through their Director of Transportation, Jimmy Duncan, and others. I also wish to acknowledge their participation in the expenses of these cases. They shared the Legal, Travel and Cost of Transcripts equally.

I mentioned the pecular situation as to one day we find we have a rate reduction and then a few days later the rates have been increased, and we wonder just how much faith or belief we can attach to the statement made by Alfred E. Perlman, President of the New York Central System, at the National Transportation Institute recently. He told questioners that the Ex Parte 206 increase, in his view, would be the last time railroads sought a straight percentage increase. He disclosed that the Eastern Railroads' Presidents now had men working on a system under which different rate adjustments would be sought in the next spiral of inflation on different commodities. The President of one of our Southern lines made practically the same statement about two years ago, yet we find that we have had two quickie increases in one year's time.

The Eastern Railroads have again postponed action on the proposed reduction in rates to Oficial and New England Territory, submitted by the Indian River Citrus League and the Growers and Shippers League of Florida, which was approved by the Southern Railroads several months ago. The Eastern Railroads' Research Group voted against the reduction with the exception of agreeing to the suggestion that the rates to the so-called Free Ice or "Item 80" Territory be reduced in the amount of the refrigeration charges, which would mean approximately 14-½ cents to Boston and New York.

It appears that Florida fresh fruit and vegetable industries may again have water service to Eastern Seaboard Ports. The Pan-Atlantic Steamship Corporation is now in the process of converting four cargo vessels to container-ship service. When converted each ship will hold 226 35-foot trailer bodies and 60 of the trailer bodies will be equipped with mechanical refrigeration units to provide refrigeration service capable of maintaining temperatures as low as five degrees below zero. Pan-Atlantic will serve the processed citrus industry as well as the fresh fruit and vegetable industries and will inaugurate service this Fall between Tampa, Florida, and Newark, New Jersey. As circumstances warrant additional service will be added and the destination ports served will be expanded and will possibly include Baltimore, Philadelphia and either Boston or Providence.

The general method of operation under this service will be for the trailer and its container to be placed at the shipper's packing house to be loaded by the shipper. Upon completion of loading the trailers will be sealed by the shipper, and the bill of lading signed by the carrier's representative who picks up the trailer for movement to Tampa. At Tampa the trailer body will be lifted from the undercarriage and stored on board ship for its journey to the destination port. Upon reaching the destination port the trailer body will be removed from the ship, placed on undercarriage and delivered to final destination by over-the-road equipment.

In a letter received from Mr. L. A. Parrish, Vice President, he mentions again the rate differentials that must be observed to make the ship's operation competitive with all truck service and suggests that five cents per box under the going truck rate would be approximately what they could offer.

The rail on canned citrus products from Florida to points in Official Territory have been in a chaotic condition for some time because of the difficulty in determining the proper combination of rates which would give the lowest charge. The rail lines had also become concerned with the increasing loss of tonnage of canned goods through diversion to other carriers or to private motor carriage. Proposals seeking to establish a lower basis of rates were filed with the various rate bureaus and after conferences and hearings this lower basis of rates was published within Southern Territory and between Southern Territory and Southwestern, Western Trunk Line and Illinois Territories.

The new rates set up two rate scales based on 36,000 pounds and 60,000 pounds carload minimum weights. The adjustment between Southern and Official Territories was delayed because of differences of opinion between the Southern and Eastern Railroads as to the level which should be published on this movement. A compromise dual minimum scale was finally approved and published to become effective June 7, 1957, between the East and South. Although a petition for suspension was filed by Pan-Atlantic Steamship Corporation, the Interstate Commerce Commission allowed these rates to go into effect on June 7 as scheduled, and we now have rates which may be easily determined by both the carriers and the shippers on the movement of canned citrus from Florida to points in the East.

Our Rate Analyst, Mr. Wray Turner, has reworked the Memorandum

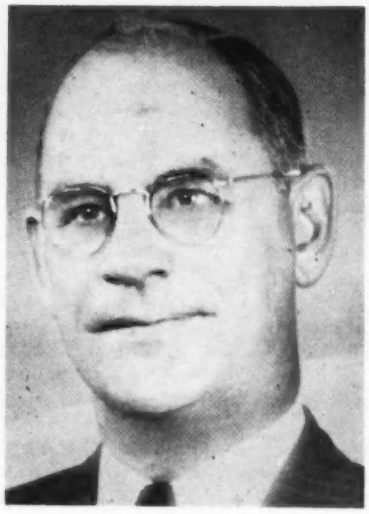
Tariff containing rail rates on canned citrus products from Florida and this will be available for distribution to our canned citrus products shippers in the near future. This Memorandum Tariff will probably run about 180 pages and will show the rates from each origin in Florida to destinations throughout the United States to which carload shipments of canned citrus are made.

This is a rather short report to you this evening as we do have a rather long program and I would now like to express our appreciation to those with whom we work so closely — the the members of the Commission and General Manager Bob Evans, and Comptroller, Bob Stuart; to Cliff Rathbun, Executive Secretary and Gene Busbee, President of the Florida Canners Association, to Chairman DeHart and members of the Transportation Advisory Council; to the Officers and members of the Traffic Committee and to Bill Stubbs, Secretary of the Florida Express Fruit Shippers Association; to the members of the Railroad Commission and their staff; and to Officers and Members of our Executive and Traffic Committees, and I again call to your atention the excellent and efficient work done by our staff — to Tom Haile, Wray Turner, Mrs. Hunter and Mrs. Strickland, and for the last the League's Attorney, Maxwell Wells. He has carried a very heavy load this year and the results are well recorded by the Commission's decisions in the Refrigeration and Ex Parte proceedings.

I wish that we could take more time to detail some of the other activities that Maxwell has participated in. We also have used the services of Joel R. Wells, Jr., and Fred Pettijohn, and want them to know we appreciate their splendid help.

ANNUAL ADDRESS

. . . By . . .



S. O. CHASE, JR.,
PRESIDENT
GROWERS & SHIPPERS LEAGUE

Members and Guests: It is a real pleasure to welcome you to the 34th Annual Meeting of the Growers and Shippers League of Florida.

This afternoon I was trying to think how I might be able to compete, just a little, with our distinguished guest speaker and our very capable Executive Vice-President. I finally concluded just to let the other speakers have all the time they wanted, and I would try to be brief.

Recently I had an opportunity to visit with a young man who had just returned from a trip to citrus sections of Spain, Israel and South Africa. A few words about each I am sure will be of interest to you.

Spain's citrus is in a deplorable condition, and where they once produced 10 to 12 million boxes it is doubtful if more than 2 or 3 million boxes will be picked this year.

In Israel the situation is very different. They now produce about 7 million boxes, and have started on a program to double the acreage and triple the production as rapidly as possible. Black Scale and Med. Fly are their pest problems. Oil spray is applied about 2 times per year. Production is 25 to 30 44-pound boxes per tree. Labor mostly 75 cents per hour.

The going price was $4.00 per 1 3/5 bu. box loaded on ship. Picking, hauling, packing and other charges to the port, as far as I could determine, amounted to about $1.50 per box. Evidently the shortage in Spain has influenced prices, which in turn has prompted the growers to increase acreage and improve production and packing through acquisition of new and modern machinery.

South Africa, with 5 to 6 million production, is really plagued by the Med. Fly, due to tremendous numbers of host plants growing wild. Labor is dirt cheap, therefore costs are less than in Israel. The production area in South Africa is approximately 2,000 miles from Cape Town, the principal port.

Transportation to the markets from Israel and South Africa is the biggest immediate problem.

Please do not think I am placing the cart before the horse, when I lead off about truck transportation and highways.

First, a word or two about the recent legislative session. A Uniform Traffic Code Law sped through both Houses at a 65 M.P.H. clip. Legislation for the return even of a small portion of the license tag revenue was either defeated or left hanging. It is my understanding that a 1 per cent sales tax on automobiles and trucks was finally passed in the closing minutes, in spite of strong opposition. License tag costs remain the same. There is much work to be done this summer before the special session is called.

Through April 30 Florida moved by truck 68.5 per cent of its fresh fruits and vegetable shipments. Last season canned single strength was 41.6 per cent by truck and water, frozen concentrate 45.1 per cent by truck.

Rail rates over the years in many instances have become punitive to many commodities, fruits and vegetables are no execption. Punitive cost to the carriers, some of which they do not have control over, have much to do with the rates.

Even if you hire a truck to transport your fruits and vegetables you can still control to a considerable extent the rate you will pay by using every means at your command to:

1. Prevent any increase in the gas tax; license tag costs, and all other highway use taxes.

2. Prevent any additional sales tax on automotive equipment and remove, if possible, the present 1 per cent.

3. Secure an anti-diversion amendment to the Constitution, whereby all highway use taxes except that now used by schools will be used only for highway purposes (not diverted as the license tag revenue has been since 1931.) Florida highway use taxes amounted to approximately 40 per cent of all taxes collected by the State. Florida is the only state in the Union that does not use any of its license tax revenue for highway purposes. Last year tag revenue totaled a little more than $36,000,000, and this year has been conservatively estimated at $40,000,000.

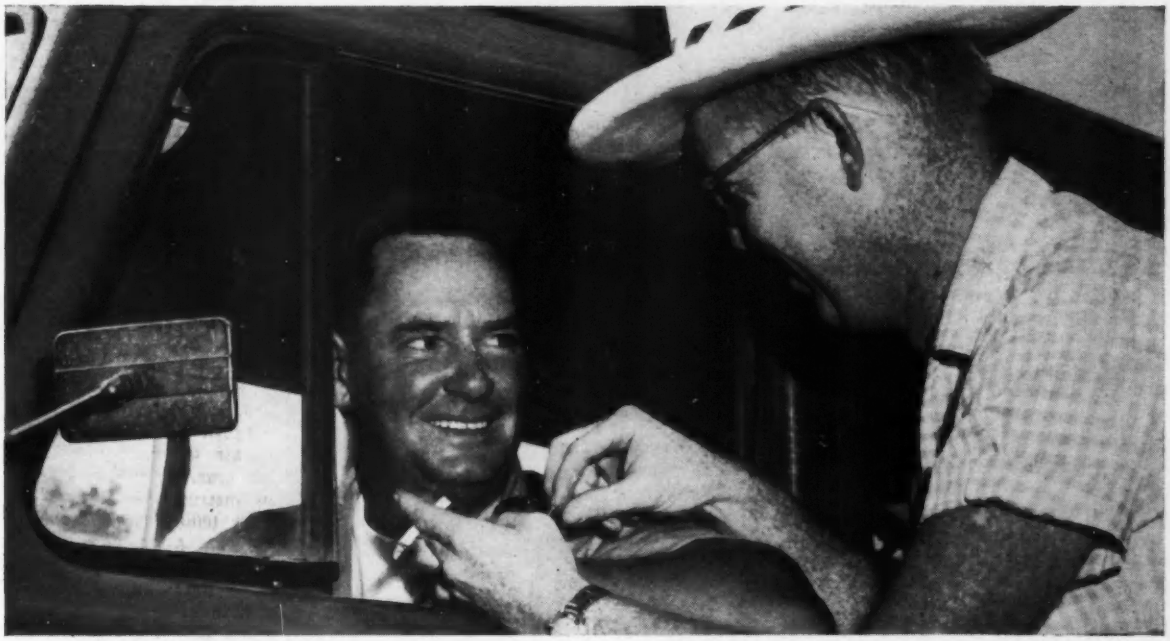
4. Protect with great jealousness, yes even by your existence, and keep unchanged the present exemption and

(Continued on page 13)

"Best results of any oil we ever used,"

states Lincoln Walker of Fullerton and Walker, citrus grove caretakers of Lake Wales, Fla. (pictured below, left, with ORTHO Fieldman J. S. Murphy).

"With ORTHO N-P 90 we got the best results of any oil that we have ever used," says Mr. Walker. "There was not any leaf droppage where N-P 90 was applied. These scientific methods of control that the ORTHO people recommend are very helpful for us growers."



Leading Florida Citrus Growers use a *complete* ORTHO program—here's why:

When you buy the ORTHO program, all the personal, on-your-ground technical advice and services of your ORTHO Fieldman are provided gladly and without any extra charge. Too, with ORTHO, you're associated with the leader. ORTHO Research first developed highly refined petroleum oil sprays in the form of new type emulsions and ready-mixes. Under such brand names of VOLCK Soluble, and Florida VOLCK these oil sprays today are known and respected by growers the world over. Include these top-choice oil sprays in your control program, too.

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West Palm Beach—Luke D. Dohner
West Palm Beach—Perry L. Sparkman

Special Industry Committee On Concentrates Reports

The special industry committee on concentrates which has been making a careful study of the concentrate situation, holding numerous conferences with concentrate producers and with specialists at the Citrus Experiment Station, has filed its report with the Florida Citrus Commission.

This committee, headed by Dr. Wallace Roy as chairman, and Lee Recker, Al Lang, Robert Kilburn, William Mitchell, Robert Mairs and John Snively, Jr., as members, submits a number of recommendations to the Commission as follows:

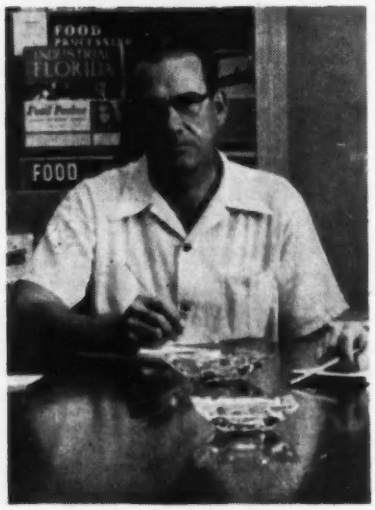
After a full discussion, it was decided that the following recommendations be made to the Florida Citrus Commission:

1. That the Commission request that the Citrus Experiment Station collect (through P. M. A. or by Commission personnel) samples of concentrate semi-monthly through the remainder of the current (1956-1957) processing season.

2. That the Commission request that the Citrus Experiment Station personnel analyze samples so collected, as quickly as possible, for flavor, physical stability and color, and that the information so obtained be transmitted to the individual participating plants, coded in such a way that each plant could identify codes pertaining to its own samples.

3. That the Commission request that Florida Citrus Commission and Citrus Experiment Station research personnel determine the procedure, requirements, and cost that will be involved so that samples may be collected and analyzed on a weekly basis throughout the 1957-58 citrus season. It is recognized that to step up frequency of sampling and analyses, additional technicians will be needed to perform the analytical work, and that an additional taste panel be trained and organized. After evaluation of the cost and the value or importance of the data to be distributed during the remainder of the 1957-58 season.

4. That the Commission request that the Florida Canners' Association supply coded yield data, expressed as percentage recovery of state pounds solid test, pertaining to recovery of juice for concentrate in each plant, such coded information to be sent to industry plants with the analytical data as mentioned above.



DR. WALLACE ROY
CHAIRMAN OF THE COMMITTEE

Hi-Density Concentrates

A thorough discussion was held on the advantages and disadvantages of hi-density frozen concentrates.

Advantages are as follows:

1. More stable, physically, than 42 Brix products. In general, the higher the concentration the more stable the product. A 58.5° Brix product (6-fold), unstabilized, exhibits roughly the same physical stability as a 42° Brix product, stabilized, Because of the greater resistance to gelation, separation, upon abuse, hi-density concentrates could be made with a minimum of heat treatment.

2. Economies. The economies implied in canning, shipping, handling and storing a more concentrated product are obvious.

Disadvantages:

1. Difficult, by existing methods, to return as much cutback to a high density concentrate, percentagewise, as is normally considered good practice in the case of 42° Brix product.

2. May require special equipment, such as pre-centrifuges, or finishing pans to attain high concentrations, particularly on some viscous juices.

3. Consumer acceptance on hi-density concentrates is unknown.

The committee recognizes the necessity for proceeding cautiously in introducing a new product to consumer, and the dangers inherent in permitting haphazard and indiscriminate marketing of a host of products in as many concentrations. After due consideration, the following recommendations are made, during a period designated as the experimental period:

1. That only 2 concentrations be considered in the hi-density area, 58.5° Brix (6-fold), 53.2° Brix (51/3 fold).

That members of the industry be encouraged to put up high Brix products.

3. That the Commission be authorized to approve markets in which hi-density concentrates will be sold, and in which all processors desiring to participate in a test will be authorized to supply the product. By this means, a true comparison can be made between the sales potential of the new hi-density concentrates and the standard concentrate. In order to avoid confusion, only one hi-density concentrate will be approved for each market area. Commission field men will be instructed to observe all merchandising phases and report to the Commission. At the same time, a promotion campaign be conducted in the marketing area designed in order to stimulate consumer "first purchases" of the new concentrate.

4. That packers submit samples of their experimental packs to the Commission for approval before shipping to the test market areas.

5. That grade standards for hi-density concentrates be requested of the quality Standards Committee of the Florida Canners' Association.

6. That the Commission be empowered to approve can size for concentrate.

It is believed desirable that after sufficient experimental marketing, data can be obtained upon which can be predicated a logical choice of one hi-density concentration for industry packing. Considerable study should be devoted to consideration of a logical can size for packaging the hi-density product, in the interest of industry uniformity. Because of the increasing popularity of frozen concentrate in the 12-ounce can, one consideration might be that of an 8-ounce can for a 6-fold product, which would reconstitute to 48 ounces.

ANNUAL ADDRESS GIVEN BY PRESIDENT S. O. CHASE, JR.

(Continued from page 10)

freedom from red tape regulations for fresh fruits and vegetables moved by trucks.

5. Develop through existing channels and organizations a long range and continuing highway program, not just for the interstate and primary roads, but very much needed secondary or farm-to-market roads.

Ignore, or treat with indifference, the five points mentioned and it will not take long for truck rates to become just as punitive as some other transportation rates.

The thought, theory or inference that registration is necessary for all trucks in order to have safety regulations enforced was blown higher than the proverbial kite, as was shown by the recent nationwide safety check, the results of which were recently announced by the I. C. C. and given in a recent Bulletin (No. 22) of the Private Carrier Conference.

Florida is paying its share of Federal highway use taxes. It is very important that the fruit and vegetable industries, as well as all other highway user groups, give full, concerted, effort to make certain that Florida will receive its proper share of the Federal aid highway funds which congress now has under study for future consideration. It is of equal importance to see that we have the necessary state funds, so that we can make use of, promptly, our share of Federal highway funds.

The Federal highway program is the second largest undertaking (next to World War II) in the history of the U. S. Government. Any program that is this immense in scope needs adequate planning and administration by all groups concerned.

Before passing on to what I know is going to be the dessert of this meeting, I want to repeat for emphasis just one thing I said last year — "Everybody interested in transportation, grower, shipper, or processor, should do his utmost to make sure that no one anywhere tampers with the kind of competition in transportation that has been fundamental in making the United States the greatest production and distribution nation in the world."

This past year the League has handled ten major cases, as well as numerous minor ones. The year has been what might be considered average as to activities, therefore a good one to use to give you a little idea of what is required of those handling the details.

Your Executive Vice-President, Gordon Stedman, Traffic Manager, Tom Haile, Rate Analyst, Wray Turner, Consultant Fred Pettijohn, and Attorneys M. W. and J. R. Wells, spent 246 days making 95 trips and traveled 90,000 miles. My sincere thanks and appreciation to you all for the excellent job.

To Mrs. Jane Hunter, I wish to express sincere appreciation for loyalty and untiring efforts, which she accomplished under trying difficulties.

Mrs. Gladys Strickland joined the League staff only about a year and a half ago, and has most capably and pleasantly filled what was once a real need in the League office. Mrs. Strickland can always be counted on when the chips are down, when there is a deadline to be met in the preparation of briefs, or any other jobs large or small.

To General Manager Bob Evans and the entire Citrus Commission I extend thanks for their splendid cooperation.

To Chairman Gabe DeHart, President Gene Busbee and Secretary Rathbun I extend thanks for untiring efforts and cooperation.

It is believed that final tabulation of a 3-year count of citrus trees in Florida will reveal about 43 million trees.

EFFECT ON HEAT TREATMENT TEMPERATURE ON SURVIVAL OF MICROORGANISMS IN SINGLE STRENTH ORANGE JUICE

(Continued from page 7)

in citrus juices. Food Technol., 6, 291 (1952).

Smith, A. B., and Gillmore, J. D. Bacteriological study of concentrated frozen orange juice. Naval Medical Center, Bethesda, Maryland. Project NM 011-015. Report No. 1 (1947).

Production Costs Highest of Record

Citrus production costs were at their highest in 25 years during the 1955-56 season as measured by citrus cost of production studies by the Florida Agricultural Extension Service and Experiment Stations. An increase of 12 percent over 1953-54 brought the operating or cash costs to $206.43 per acre in 1954-55. A further increase of 3 percent brought the average cost to $212.28 per acre in 1955-56. This was an increase of 76 percent over 1949-50. Citrus production costs per acre on bearing groves increased each season from 1939-40 to 1946-47 — seven successive seasons — then decreased for three seasons to 1949-50. Since the latter season, there were increases in 1950-51 and 1951-52 over the preceeding season, then a slight decrease in 1952-53 followed by increases in each of the three succeeding seasons. See accompanying table.

ZACH SAVAGE
AGRICULTURAL ECONOMIST

Yields tended to increase over the period of these accounts, a portion of which was due to increasing average age of groves. Economic, weather, and other conditions resulted in commercial yield fluctuations on these groves of mixed citrus. These accounts were started in 1931-32 and each of the first seven seasons averaged less than 200 boxes per acre when average ages of trees varied from 17 to 19 years. Yield averages were again less than 200 boxes during the three seasons of 1939-42 when average ages were from 20 to 21 years. The yield was 305 boxes in 1943-44 with trees at 23 years of age. The average yield was below 300 boxes during the three succeeding seasons and 321 boxes in 1947-48 with trees at age 25. In six of the seven seasons since 1947-48 the average yields were above 300 boxes per acre, reaching 447 boxes in 1953-54 with average age at 30 years. The following season, 1954-55, the yield averaged 356 boxes with tree age at 31 years.

Yields by 5-year average returns above operating cost, and average age of trees were:

The average yield for the four seasons of 1951-55 at 375 boxes per acre was three times the 5-year average of 1931-36, more than twice the 1936-41 average, 50 percent above 1941-46, and 19 percent higher than the 1946-51 average.

1954-55 Season. The yield in 1954-55 at 356 boxes per acre was the second highest of 24 seasons on these groves, being exceeded in 1953-54 with 447 boxes. Labor, power, equipment cost in 1954-55 at $91.51 per acre was the highest of 24 seasons and more than four times such costs in each of the three seasons of 1933-36 and more than three times such costs in each of the 11 seasons of 1932-43. Money spent for fertilizer materials averaged $66.43 per acre. This was the highest such figure of these seasons and more than three times the average for 7 of these seasons. Money spent for spray and dust materials averaged highest in 1954-55 at $23.36 per acre. This was more than five times the average in the first six seasons and more than twice that for 18 seasons. State and county taxes at $11.72 per acre were the second highest of 24 seasons and were more than twice that for 15 seasons. Taxes at $11.76 in 1931-32 were second to the $12.78 figure for 1955-56.

Operating costs per acre averaged $206.43 per acre, the highest of the 24 seasons. This figure was more than three times such cost in 10 of these seasons and more than twice that for 13 seasons. Interest at 6 percent on estimated grove valuation was $65.82 per acre in 1954-55 — the highest of 24 seasons. Total cost at $272.25 per acre in 1954-55 was the highest of 24 seasons and more than twice that for 13 seasons. Much of these increases in costs were due to decreases in the value of the dollar. Some of the increases were due to increasing age of trees requiring added expenditures for some items.

Yields and Per-Box Cost. Increased yields tended to offset increases in per-acre costs. An operating cost of 51 cents per box in 1931-32 was not exceeded until 1944-45 when a hurricane lowered the yields. Other seasons when this figure was exceeded were in 1946-47 at 55 cents and in 1954-55 at 58 cents. There were

DATA BY SEASONS FOR GROVES OVER 10 YEARS OF AGE, 1950-56

	1955-56	1954-55	1953-54	1952-53	1951-52	1950-51
Number of grove records	173	170	179	198	195	192
Total acres of records	7355	6513	6838	6969	6819	6890
Average acres per grove	43	38	38	35	35	36
Average age	31	31	30	29	29	28
Number of trees per acre	60	61	61	61	61	62
Percent trees grapefruit	28.4	30.3	28.6	29.7	30.0	30.2
Boxes harvested per acre	*	356	447	344	355	360
Cost per acre:						
Labor, power, and equipment	$ 98.25	$ 91.31	$ 84.64	$ 81.01	$ 80.16	$ 79.31
Fertilizer materials	59.83	66.43	60.61	55.89	61.65	50.48
Spray and dust materials	20.36	23.36	19.61	17.63	18.34	14.38
State and county taxes	12.78	11.72	11.34	11.04	10.11	9.64
Miscellaneous	21.06	13.61	7.80	4.71	7.12	6.86
Total operating costs	212.28	206.43	184.00	170.28	177.38	160.67
Interest on grove valuation at 6%	66.31	65.82	62.91	61.07	61.45	57.17
Total cost without owner supervision	278.59	272.25	246.91	231.35	238.83	217.84
Returns per acre						
Returns from fruit	*	321.45	323.98	325.74	238.83	408.32
Net returns		49.20	77.07	94.39	.00	190.48
Returns above operating costs		115.02	139.98	155.46	61.45	247.65
Costs per box						
Labor, power, and equipment		.26	.19	.24	.23	.22
Fertilizer materials		.19	.14	.16	.17	.14
Spray and dust materials		.06	.04	.05	.05	.04
State and county taxes		.03	.02	.03	.03	.03
Miscellaneous		.04	.02	.02	.02	.02
Total operating costs		.58	.41	.50	.50	.45
Interest on grove valuation at 6%		.18	.14	.18	.17	.16
Total cost without owner supervision		.76	.55	.68	.67	.61
Returns per box						
Returns from fruit		.90	.72	.95	.67	1.14
Net returns		.14	.17	.27	.00	.53
Returns above operating costs		.32	.31	.45	.17	.69

* Returns not yet available.
Source: Growers cooperating with Florida Agricultural Extension Service and Experiment Station, Gainesville, Florida.

eight seasons when such costs were less than 40 cents, six seasons from 40 to 45 cents, and nine seasons from 50 to 55 cents. Cost per box with interest on grove included was highest during the season of 1933-34 at 91 cents per box. The season with lowest such cost was 1943-44 at 41 cents. The 24 year average was 60 cents.

On-Tree Price. The on-tree price received for fruit from groves in 1954-55 was 90 cents per box. This was 12 cents less than the average for the 24 seasons and the fifth lowest price of the 14 seasons of 1941-55. The lowest price of these 14 seasons was 43 cents in 1947-48. Receipts per acre in 1954-55 were $321 and this season ranked tenth in this regard among 24 seasons and was 30 percent more than the average of $247. The highest price received for fruit from these groves was $2.02 in 1944-45, and the average for 24 seasons was $1.02.

Net Returns. Returns above operating, or cash, casts per acre were $115 in 1954-55. There were 13 of the 24 seasons with a lower figure than this. eTh distribution of these seasons by returns above operating costs were:

$400 to $499 per acre—2 seasons
$300 to $399 per acre—3 seasons
$200 to $299 per acre—2 seasons
$100 to $199 per acre—4 seasons
$50 to $99 per acre—6 seasons
0 to $49 per acre—5 seasons
Less than 0 per acre—2 seasons

There were two seasons when returns did not pay operating costs.

When including interest on the estimated grove investment as a production cost, the figure for returns above operating costs is reduced by the amount of the interest. Net returns by season averages were:

$300 to $399 per acre—4 seasons
$200 to $299 per acre—2 seasons
$100 to $199 per acre—1season
$50 to $99 per acre—5 seasons
0 to $49 per acre—6 seasons
Less than 0 per acre—6 seasons

The average net returns per acre over the 24 seasons was $101. Capitalized at 6 percent this represented an investment or value of $1,688 per acre. There were seven of these seasons, or 29 percent, when six percent interest or less was realized on the grove investment above operating or cash costs.

Quality in the fruit which we send to market must be apparent in the exterior appearance of the fruit as well as in superior flavor if it is to accomplish the best results.

Sorrells Named Chief Executive Adams Packing Company

Herschel Sorrels, long a prominent figure in the citrus industry of Florida, has recently been named executive Vice President of Adams Packing Association, Inc., with headquarters at Auburndale.

Sorrels will assume active charge of the organization on Sept. 1. He succeeds J. M. Morrow, who in leaving his position as executive vice president of the company, now be-

HERSCHEL SORRELLS

comes chairman of the board of this big citrus organization. Morrow has been the active director of the association's affairs since it was first organized in 1926.

The company handles between 3,500,000 and 4,000,000 boxes of fruit annually and is one of the big operators in the state. A large portion of the fruit handled is grown by association members.

The company has a packing plant, a juice plant, a sectionizing plant, a concentrate and by-products plant, all of which are located in Auburndale.

Sorrells who recently retired as president of the Sorrells Fruit Co., continues to maintain his holdings in that company, but states there is no connection between the Sorrells and Adams operations.

He was a member of the Citrus Commission for three years, having been chairman of that body last year. He has lived in Arcadia for the past 18 years, active in citrus during that entire period, as well as for several years prior to coming to Arcadia.

CITRUS INSECT CONTROL FOR JULY 1957 . . .

(Continued from page 3)

plied when most of the eggs have hatched and the scales are still young. In most groves, early July will be a favorable time for spraying. Either parathion at 1 pound of 15 percent wettable powder or 1.3 percent oil emulsion will give satisfactory results.

Mealybug Control: Mealybugs are still numerous in some groves and are massing about the stem end of the fruit, between fruit and leaves, and where fruits are in contact with one another. Unless severe infestations of mealybugs are controlled, they will cause a fruit drop, bumpy, offgrade fruit, and quantities of sooty mold. Although mealybugs are now difficult to control, an effort should be made to control them before they do too much damage. Parathion at the standard dosage of 1 pound of 15 percent wettable powder is the most effective spray.

Greasy Spot Control: Greasy spot is a disease of citrus that should be controlled, particularly where it has been a severe problem in past years. July is the time to control this disease. The most effective spray for control of greasy spot is an application of neutral copper at the dosage of 0.4 percent metallic copper per 100 gallons of spray. Copper applied during the summer, however, may darken any blemish already on the fruit and should not be used on fruit destined for the fresh fruit market. Captan is recommended as a substitute for copper. Two applications of Captan at 2 pounds per 100 gallons is effective when applied at 4 to 6 weeks intervals between July 1 and August 15.

Oil emulsion at 1.3 percent actual oil, applied about July 1 is moderately effective against greasy spot, but is more effective when followed in mid-August with an application of a neutral copper at a dosage of 0.25 pound of metallic copper per 100 gallons.

Details of spray schedules and the various materials used will be found in the "Better Fruit Program" and this should be consulted to determine which materials may or may not be combined. For further information, consult the Citrus Experiment Station at Lake Alfred or Fort Pierce.

PINELLAS PLANS COURSE IN ORNAMENTAL HORTICULTURE

Spurred by the success of last year's course, Pinellas county rural and urban leaders are planning their second short course in ornamental horticulture. H. A. Williams, assistant county agent, says that more than 200 men and women came to learn more about home landscaping last year. The current short course is set for November.

Importation of Citrus Plants Is Prohibited

Referring to an advertisement by a foreign concern seeking purchasers of citrus stock in the United States, Plant Commissioner Ed L. Ayers calls attention to laws and regulations forbidding the importation of citrus plants, cuttings and budwood. In calling attention to this ban on the importation of citrus, Mr. Ayers says:

"For several years Federal Quarantine No. 19 has prohibited the im-

ED L. AYERS
PLANT COMMISSIONER

portation of citrus plants, cuttings, etc., except fruits from some countries and seeds in small quantities into Florida. This quarantine was declared necessary in order to prevent the introduction into the United States of the citrus canker disease and several other citrus diseases, known to exist in citrus areas throughout the world and not known to be present in our country.

"Permits are not issued to import citrus plants or budwood. Any shipment arriving at United States points are subject to return to point of origin or destruction by burning. Treatment by fumigation is never attempted at plant quarantine stations in the United States."

Cost Of Marketing Florida Oranges

Less than a fourth of the retail price of a box of Florida oranges went to the grower in 1955-56, according to a report issued by the U. S. Department of Agriculture.

Based on a study of marketing costs for Florida oranges retailed in New York City and Chicago, the report shows that in 1955-56 the average retail price of a 90-pound box of oranges in New York City was $8.09. Of this retail price, the grower received about $1.77, and the total cost of shipping, packing, storing, wholesaling, and retailing was $6.32.

When Florida oranges were sold in Chicago, the picture was considerably different. The average retail price in Chicago during the same period was $6.76, of which the grower received about $1.34, and the cost of marketing was $5.42. Researchers believe that most of the difference in retail price between Chicago and New York was because more Indian River fruit, which brings a premium price, was shipped to New York.

Average costs of various services for marketing a 90-pound box of Florida oranges sold in New York and Chicago look like this: Rail transportation charges — $1.29 to New York, $1.26 to Chicago; wholesale-retail margin — $3.14 in New York, $2.34 in Chicago; terminal selling charges — 31 cents in New York, 32 cents in Chicago; packing costs—97 cents in both cities; hauling costs to the packing house — 10 cents for fruit shipped to both cities; cost of cartage at the terminal market — 20 cents in New York, 12 cents in Chicago.

Economists of the Agricultural Marketing Service compared marketing costs for oranges in 1949-50 with 1955-56. For oranges sold in New York City, the spread between retail price and the return to producers increased 7 per cent in the 5-year period. Retail prices actually declined about 2 per cent in the period, while on-tree returns to growers decreased 25 per cent.

A major portion of this 7 per cent (43 cents) increase in the margin was due to increased terminal selling charges (14 cents), in picking and hauling costs (11 cents), and in rail transportation and packing costs (6 cents each).

A free copy of the report, "Orange Tree to Breakfast Table, Marketing Costs and Margins for Florida Oranges," Marketing Research Report No. 164, can be obtained from the Office of Information, U. S. Department of Agriculture, Washington, D. C.

IDENTIFY POISON IVY AND AVOID ITS PAINS

The itch to do summer travel often continues after you return home — if you contact poison ivy.

Picnic groves, woods and lake margins are favorite places for ivy, warns Botanist Erdman West with the Florida Agricultural Extension Stations.

You will recognize the plant by its three leaflets at the top of a long stalk. "Leaves three, let it be," is a good rule to follow in avoiding a seige of ivy poisoning or dermatitis.

You most often must make contact with the plant to get poisoned. However, you can incur a sereve case by walking through smoke from ivy leaves or stems, West says.

MUTUAL'S 1957-58 BOARD OF DIRECTORS

Shown above are the members of the Board of Directors which will guide Florida Citrus Mutual during the 1957-58 season. The picture was taken a short time after the new Board had been officially seated at Mutual's ninth annual meeting in Nora Mayo Hall, Florida Citrus Building, Winter Haven, on June 18. Shown left to right, are:

Seated: W. Max Acree, DeLand; James C. Morton, Auburndale; T. E. Estey, Crescent City; Herbert S. Massey, Dade City; Charles C. Partin, Kissimmee; Vernon L. Conner, Mount Dora; Thomas O. Brown, Frostproof; Ford W. Moody, Palm Harbor; J. J. Parrish, Jr., Titusville.

Standing: A. B. Michael, Wabasso; B. F. Wheeler, Oviedo; Leo H. Wilson, Bradenton; W. G. Strickland, Vero Beach; W. R. McMullen, Tampa; Albert Carlton, Wauchula; Robert J. Barben, Avon Park; Clayton Logan, Lakeland; John Parker, Arcadia; C. F. Fawsett, Jr., Orlando; Fred Atkinson, Minneola.

Officers for the new season are: Conner, president; Massey, Strickland, Brown and Acree, vice presidents; Partin, secretary; Acree, treasurer; Michael and Morton, vice presidents emereti; Wilson, Conner, Acree, Fawsett, Michael, Parker and Morton, executive committee.. L. W. Tilden, Winter Garden, was not present when picture was taken.

FLORIDA LIME PRODUCERS, HANDLERS FAVOR CONTINUANCE MARKETING PROGRAM

Producers and handlers of Florida limes have indicated they favor continuance of the existing Federal marketing agreement and order program which regulates the handling of limes grown in Florida, the U. S. Department of Agriculture announced on June 10.

Continuance of the amended agreement and order was favored by more than 88 percent of the number of producers voting, and by more than 92 percent of the volume of production voted in the referendum. Handlers of more than 72 percent of the shipments of limes during the 1956-57 fiscal year favored continuance of the program.

Provisions of the amended agreement and order, originally effective June 15, 1955, require that a referendum of the lime producers and a poll of the handlers be conducted as soon as practicable after the close of the fiscal year ended March 31, 1957. The rerefendum and poll were conducted during the period May 16-25, 1957.

Meat supplies essential B vitamin which provide pep and energy, contribute to healthy skin and eyes and promote normal functions of the body.

Notes Of The Trade

Sorrells Brothers Packing Company, Inc.

Announcement was made recently by Herschell N. Sorrells, President of Sorrells Brothers Fruit Company, that the firm will be reorganized and henceforth known as: Sorrells Brothers Packing Company. Inc.

Robert Sorrells

Howard Sorrells

The officials of the new company are: Robert Sorrells, President and General Manager, Howard Sorrells, recently from Atlanta, Ga., will be serving as Vice President and Assistant to General Manager, R. W. (Dick) Snyder will continue as Sales Manager for the new organization.

The retiring President, Herschell Sorrells, will continue to maintain his grove holding interests in the Arcadia area and he stated: In relinquishing my interests in the fresh fruit operation and the presidency to my brother, Robert, I wish to assure my many friends and customers of the past that they can look forward to receiving the same high quality standard citrus fruits from the new organization."

WINDOW DRESSINGS

Windows are a natural focal point in a room. Nothing you can do to a room in the way of redecorating repays you as much as a fresh, new treatment for your windows. Window dressing can make or mar a room. Draperies should tie the decorative scheme together through color, texture and design. Windows should be treated simply and never look overdressed or cluttered. Window treatments should help control light and air, provide privacy, and beautify a room. What you use — hangings, blinds, shades, awnings, or combinations of these — will depend upon your needs.

Reports Of Our Field Men . . .

SOUTH POLK, HIGHLANDS, HARDEE, DeSOTO AND SARASOTA COUNTIES

C. R. Wingfield

The citrus season is fast coming to a close. The Valencia deal turned out very disappointing to many growers and we are still asking the question "What Happened?" Much has been said about the break in fruit quality and the growers have set about to take better care of the coming crops.

The fertilizer application on bearing trees have been completed but young non-bearing trees should be fed at regular intervals during the summer for continued growth. Allow enough time in the fall for the growth to harden before cold weather.

The new crop appears to be sizing well and more fruit can be found than first expected. Crops are very spotted and some varieties are short. Joffa's, for instance, are far below normal and Pineapple oranges, while it looks better now, will be some below normal. Have expected some late bloom but rains have kept the trees rather thrifty and do not expect any now unless it gets dry and then rains.

Oil sprays have been in progress during June because of the early scale infestation. Where scale has not been bad it will be delayed until active crawlers are found.

Vegetable growers are making plans for their fall crops. Planting seed beds and clearing lands but it is too early to gather any information on how much or what will be planted.

EAST HILLSBOROUGH AND PASCO COUNTIES

E. A. McCartney

Most groves have been fertilized and by the end of this month, June, most groves will have been layed by until the fall application of fertilizer. Plenty of rust mite and some red spider. We have been dusting and spraying between rains for the last month. Groves have never looked better. Mostly due to plenty of rain which put the spring fertilizer to work.

The vegetable deal is over with varying results to the growers. The over-all returns were satisfactory. Some melon growers came out all right but wet weather hurt others.

Pastures are in fine condition. Also, this is the time of year we look forward to a vacation, also to our annual sales meeting where we always have plenty of orange and grapefruit juice. Oh yes, and plenty of something good to eat.

NORTH CENTRAL FLORIDA

V. E. Bourland

We have had several beautiful days of weather, good for the growers. Some groves have been too wet to do much in. Caretakers are all busy finishing summer application of fertilizer, and staying after insects. Lots of scale showing up and plenty of mites. Groves are looking fine, and most of them seems to have plenty of fruit, and is sizing up good. Cover crops have taken over, and the grower will have plenty to work in soil this year.

Young trees have a wonderful growth, looking good, and growers are tickled to see it.

Melon growers came out alright, but they had almost too much rain on the last. Vines begin to die as growers couldn't get in to spray.

HIGHLANDS AND POLK COUNTIES

J. K. Enzor, Jr., & R. E. Lassiter, Jr.

We still cannot complain in this area too much about the lack of rainfall, however, rainfall has slacked off some at the time of this writing.

Most of the growers in this area have finished their summer fertilizer application. Young trees should be receiving fertilizer throughout the summer months to insure maximum growth.

There has been an increase in rust mite activity which we are expecting to continue for about a month. Growers should be checking closely for this mite. Where oil is to be used for scale control, the grower should wait three weeks or until the rain has washed the sulfur off the fruit before applying oil.

Many of our growers have become interested in the use of Zineb for rust mite control. This material is new to those of us growing citrus, but it has been used for some time on other fruits and vegetables. We are very well pleased with the results received from the use of this material so far, but we are not recommending to our customers that they freely use this material, except at their own risk, until more experimental data is completed. This material will certainly be a boon to our industry if it continues to prove to be satisfactory.

Hooks Named General Manager of Florida Citrus Commission

In a major reorganization of the Florida Citrus Commission management, Homer E. Hooks, of Dunedin, was named general manager of the Commission. For the past year Hooks has been general manager of H. P. Hood & Sons' citrus concentrate operation at Dunedin. Hooks said he expects to take over his new position about August 1.

Robert C. Evans, present general manager, will be named Director of Administration in the revamped setup. No other changes are contemplated at this time, according to Key Scales, Weirsdale, who was elected new Commission chairman for 1957-58.

Prior to going with Hood last summer Hooks was for four years assistant general manager and marketing manager of Florida Citrus Canners Cooperative, at Lake Wales. He was formerly vice president in charge of sales of Lakeland Highlands Canning Company, Highlands City; secretary-manager of the Canners League of Florida, with headquarters in Lakeland; and citrus staff writer for the Tampa Tribune.

Hooks served in the U. S. Infantry in World War II and in Army Intelligence in Washington, D. C., in the Korean War. He is a graduate of the University of Florida and a member of Phi Beta Kappa and Florida Blue Key. He is is married to the former Mary Helen Burns, of Cuero, Texas, and they have two sons and a daughter.

Hooks stated that he has not as yet studied the present Commission program in detail, but that it is his intention to "coordinate the abilities of the Commission's fine staff and merchandising force to do a positive and dynamic job of retail service to every phase of the Florida citrus industry in the critical years ahead."

MOST FARM ACCIDENTS CAUSED BY CONDITIONS THAT CAN BE CORRECTED

Here's a rather arresting statement from the U. S. Department of Agriculture. Many of the accidents that kill 14,000 farm people each year — that's the average toll for 1950-55 — are caused by unsafe practices and hazardous conditions that could be corrected. The agency reports some grim figures in "Fatal Farm Accidents in the United States, 1949-53."

Farm work accidents killed an average of 3,900 farm people each year from 1950 through 1955, according to National Safety Council figures cited in the USDA report.

Classified Ads

SUPERIOR CITRUS TREES available for Fall 1957 and Spring 1958 planting: Valencias, Hamlins, Pineapples, Orlandos and other varieties. Write for quotation and your FREE copy of "Care of Young Citrus Trees." WARD'S NURSERY, Box 846, Avon Park, Florida. Phone GLendale 2-7541.

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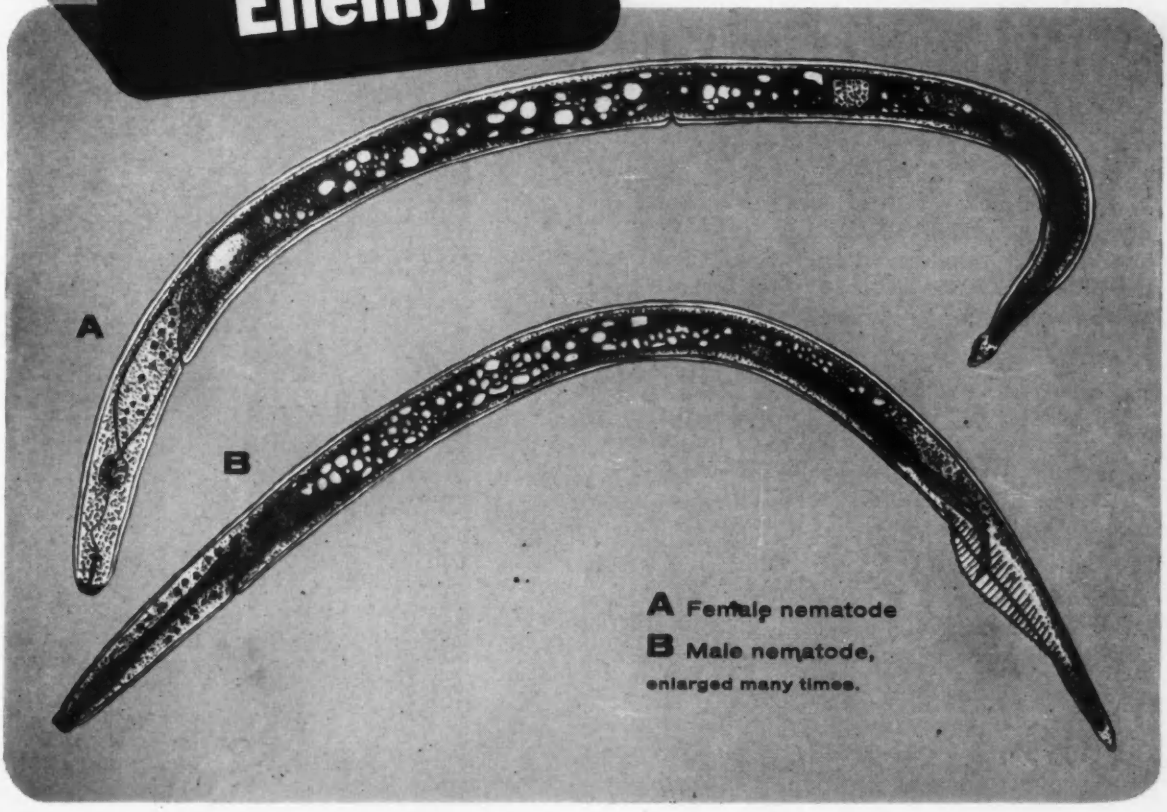

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Nematodes are one of the chief causes of serious citrus downgrading. Nematode damage results in citrus losses amounting to millions each season.

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D-D soil fumigant is an easy-to-use liquid. Injected into the soil with inexpensive tractor attachment or gravity-flow plow equipment, it becomes a potent gas, killing nematodes as it spreads. And it's economical, too. One pre-plant treatment is all you need for effective control.

What's more, D-D soil fumigant kills other citrus-stunting nematodes such as burrowing root knot, meadow, and citrus nematodes. Important, too, this powerful soil fumigant prevents resuckering of old nematode-infested roots.

Don't gamble with nematodes in your new grove. Use D-D soil fumigant before you plant. It's available from your pesticide dealer. See him today.

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